



## **2011 ANNUAL WATER QUALITY / CONSUMER CONFIDENCE REPORT**

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo, o hable con alguien que lo entienda bien.

Since 1990, community water systems in California have been providing an Annual Water Quality Report to customers under regulations adopted in 1989 by the California Department of Health Services. However, the 1996 amendments to the Federal Safe Drinking Water Act and recently adopted federal regulations now require a "Consumer Confidence Report". In addition, California law now requires a similar report to consumers.

This report must contain information on the quality of water delivered by the system and characterize any risks from exposure to contaminants detected in the drinking water. Contaminant levels have previously had a Maximum Contaminant Level (MCL). The Federal Government has now established a Maximum Contaminant Level Goal (MCLG) for each constituent that has an MCL. The State of California is currently establishing their own Public Health Goal (PHG) for each of the same contaminants. Where the State has not yet set a PHG, the requirement levels noted in the tables on the following pages refer to the federal MCLG. Definitions of these terms are as follows:

- **Maximum Contaminant Level (MCL):**  
This is the highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.
- **Maximum Contaminant Level Goal (MCLG):**  
The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (U.S. EPA).
- **Maximum Residual Disinfectant Level (MRDL):**  
The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
- **Maximum Residual Disinfectant Level Goal (MRDLG):**  
The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLs are set by the U.S. Environmental Protection Agency.
- **Primary Drinking Water Standard (PDWS):**  
MCLs, for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- **Public Health Goal (PHG):**  
The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency (CAL. EPA).
- **Regulatory Action Level (RAL):**  
This is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Secondary Drinking Water Standards (SDWS):**  
MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.
- **Treatment Technique (TT):**  
A required process intended to reduce the level of a contaminant in drinking water.
- **Variances and Exemptions (V&E):**  
State or EPA permission to exceed an MCL or not comply with a treatment technique under certain conditions.

For calendar year 2011, the North of the River Municipal Water District supplied approximately 1783 acre/feet of treated surface water and 303.7 acre/feet of ground water to our retail customers. Approximately 6924 acre/feet was sold to Oildale Mutual Water Company as our wholesale water customer. The primary source of your drinking water is treated water from the Henry C. Garnett Treatment Plant via the Friant Kern Canal, State Water Aqueduct, Kern River and some groundwater. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

- **Microbial Contaminants:** (e.g. viruses and bacteria)  
May come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic Contaminants:** (e.g. salts and metals)  
Can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, or farming.
- **Pesticides and Herbicides:**  
May come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Organic Chemical Contaminants:**  
Including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, but can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive Contaminants:**  
Can be naturally occurring or be the result of oil and gas production.

The North of the River Municipal Water District has one potable water well known as The Holson Well, and one inactive water well (Well #1). The Holson Well, located at 711 Willow Drive, is tested every 3 years for various constituents, the most recent test being conducted February 8, 2011. The Holson Well has been tested for all parameters listed above in accordance with all applicable State and Federal Regulations. This well was also tested for synthetic and volatile organic chemicals. All analysis results for synthetic and volatile organic chemicals were less than the detection limit. In addition, this well was tested for nitrates, and as have been in the past, Nitrate levels are well below the contaminant level as set by the State. A source water assessment was conducted for the Holson Well of the North of the River Municipal Water District water system in May, 2001. The source is considered most vulnerable to the following activities not associated with any detected contaminants: Chemical/Petroleum Pipelines. A copy of the complete assessment may be viewed at North of the River Municipal Water District, 4000 Rio Del Norte Street, Oildale, CA 93308. You may request a summary of the assessment be sent to you by contacting: David Aranda, General Manager by phone (661) 393-5411, by fax (661) 399-8911 or by e-mail at [daranda@normwd.org](mailto:daranda@normwd.org).

In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (USEPA) and the California State Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the United States Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

The North of the River Municipal Water District vigilantly safeguards its water supplies, and once again we are proud to report that our system did not violate a maximum contaminant level. For 2011, as in years past, your tap water met all USEPA and State drinking water health standards. In July 2011, Lead and Copper tests were taken and our District met the Federal and State requirements.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons (e.g., persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants) can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

In our continuing efforts to maintain a safe and dependable water supply, and to comply with State and Federal regulations, it may be necessary to make improvements to your water system. The costs may be reflected in the rate structures, because rate adjustments may be necessary in order to make these improvements. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

This brochure is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to USEPA and State standards. We are committed to providing you with this information because informed customers are our best allies.

If you have any questions or need more information, you may attend the District's regularly scheduled Board meetings (3<sup>rd</sup> Wednesday of every month @ 4:30 p.m.), or call General Manager - David Aranda at (661) 393-5411. We look forward to continued efforts in providing you with high quality water.

**LEGEND / NOTES**

In the preceding tables, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we have provided the following definitions:

**+** = Indicates Secondary Drinking Standard Levels

**\*\*** = Federal Lead & Copper Rule Action Level

**\*** = Fluoride Standard Depends on Temperature

**DLR** = Detection Limit for Reporting Purposes

**MCL** = Maximum Contaminant Level

The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.

**MCLG** = Max Contaminant Level Goal

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (U.S. EPA).

**mf/l** = Million Fibers Per Liter

Million fibers per liter is a measure of the presences of asbestos fibers that are longer than 10 micrometers.

**mic** = micromhos

**mrem/yr** = Millirems Per Year

Measure of radiation absorbed by the body.

**MRDL** = Maximum Residual Disinfectant Level

The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

**MRDLG** = Maximum Residual Disinfectant Level Goal

The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLs are set by the U.S. Environmental Protection Agency.

**NA** = Not Applicable

**ND** = None Detectable

Laboratory analysis indicates that the constituent is not present.

**NR** = Not Required

**NT** = Not Tested

**NTU** = Nephelometric Turbidity Units

Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/l** = Picocurie Per Liter

Picocuries per liter is a measure of the radioactivity in the water.

**PHG** = Public Health Goal (State)

The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency (EPA).

**PPB** = Parts Per Billion or Micrograms Per Liter (ug/L)

One part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

**PPM** = Parts Per Million or Milligrams Per Liter (mg/L)

One part per million corresponds to one minute in 2 years, or a single penny in \$10,000.

**PPQ** = Parts Per Quadrillion or Picograms Per Liter (pg/L)

One part per quadrillion corresponds to one minute in 2,000,000,000 years, or one penny in \$10,000,000,000,000.

**PPT** = Parts Per Trillion or Nanograms Per Liter (ng/L)

One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

**RAL** = Regulatory Action Level

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**TT** = Treatment Technique

A required process intended to reduce the level of a contaminant in drinking water.

**V&E** = Variances & Exemptions

State or EPA permission to exceed an MCL or not comply with a treatment technique under certain conditions.

TREATED WATER AND HOLSON WELL GROUNDWATER							
Parameters							
	Last Sample Date	Units	MCL	PHG (MCLG)	Treated Water	Range	Holson Well
<b>Microbiological Contaminants</b>							
Total Coliform Bacteria	T-12/11:W-12/11	NA	>5.0% of samples present for Coliform Bacteria in one month	0	0	0	0
Typical Source: Naturally present in the environment							
Fecal Coliform or E.Coli	T-12/11:W-12/11	NA	A routine sample and a repeat sample detect total coliform and either sample also detects Fecal Coliform or E. Coli	NA	0	0	0
Typical Source: Human and animal fecal waste							
<b>Radioactive Contaminants</b>							
Gross Alpha Activity	T-10/10 : W-5/04	pCi/L	15	NA	NT	0.91-2.32	NT
Radium 226	T-10/10 : W-5/04	pCi/L	NA	0.5	NT	0.022-0.088	NT
Radium 228	T-10/10 : W-5/04	pCi/L	NA	0.019	NT	0.208-0.337	NT
Uranium	T-10/10 : W-5/04	pCi/L	20	0.43	NT	0.87-2.41	NT
Typical Source: Erosion of natural deposits							
Gross Beta Activity	T-12/05	pCi/L	50	NA	NT	NA	NT
Strontium 90	T-12/05 : W-5/04	pCi/L	8	0.35	NT	NA	NT
Typical Source: Decay of natural and man made deposits							
<b>Inorganic Contaminants</b>							
Aluminum	T-10/11	ppm	1	0.6	0.062	.047-.085	NT
Typical Source: Erosion of natural deposits; residue from some surface water treatment processes							
Fluoride *	T-10/11	ppm	2	1	0.12	ND-.20	NT
Typical Source: Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories							
Foaming Agents (MBAS)	T-04/11 : W-1/11	ppb	0.5	ND	NT	ND	<10
Typical Source: Municipal and industrial waste discharges							
Nitrate + Nitrite (Sum as Nitrogen, N)	T-10/11: W-2007	ppm	10	10	0.18	ND-.703	NT
Nitrate (as NO3)	T-10/11 : W-1/11	ppm	45	45	0.78	ND-3.11	3.3
Typical Source: Runoff/Leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 2010, we did not monitor or test for nitrates and therefore, cannot be sure of the quality of the drinking water during that time. Please note the results for 2011 are within the normal range and thus in compliance.							
Odor	T-10/11 : W-1/11	units	3	NA	2	1.4-2	ND
Color	T-10/11 : W-1/11	units	15	NA	<2.5	<2.5-<2.5	2
Typical Source: Naturally occurring organic matter							

TREATED WATER AND HOLSON WELL GROUNDWATER							
Parameters							
	Last Sample Date	Units	MCL	PHG (MCLG)	Treated Water	Range	Holson Well
<b>Inorganic Contaminants (continued....)</b>							
Total Dissolved Solids	T-10/11 : W-1/11	ppm	1000	NA	109	54-207	180
Typical Source: Runoff/Leaching of natural deposits							
Specific Conductance	T-12/11 : W-1/11	micro-mhos	1600	NA	193	89-347	287
Chloride	T-12/11 : W-1/11	ppm	500	NA	18.7	4.63-56.9	10
Typical Source: Erosion of natural deposits; seawater influence							
Sulfate	T-12/11 : W-1/11	ppm	500	NA	21.5	11.7-35.5	18
Typical Source: Runoff/Leaching from natural deposits; industrial wastes							
Turbidity	T-12/11 : W-1/11	NTU	5	NA	0.07	.06-.08	0.13
Typical Source: Soil runoff							
Zinc	T-12/11 : W-1/11	ppb	5	NA	0.033	ND-.071	<50
Typical Source: Runoff/Leaching from natural deposits; industrial wastes							
<b>Disinfection By-products</b>							
Total Trihalomethanes (TTHMs)	T-11/11 : W-1/11	ppb	0.08	NA	0.036	.029-.042	3.8
Haloacetic Acids	T-11/11	ppm	0.06	NA	0.038	.030-.048	NT
Typical Source: By-product of drinking water chlorination							
<b>General Minerals and Physical Constituents</b>							
Total Alkalinity (as CaCO <sub>3</sub> )	T-12/11 : W-1/11	ppm	NA	NA	41	26-50	<4.1
Bicarbonate	T-12/11 : W-1/11	ppm	NA	NA	49.7	31.7-61	100
Calcium	T-12/11 : W-1/11	ppm	NA	NA	11.7	6.99-16.5	31
Magnesium	T-12/11 : W-1/11	ppm	NA	NA	3.37	.93-8.69	3.9
Potassium	T-12/11	ppm	NA	NA	1.59	.93-2.5	NT
Typical Source: Erosion of natural deposits							
pH	T-12/11 : W-1/11	units	NA	NA	7.11	6.99-7.16	7.94
Typical Source: Inherent characteristic of water							
Total Hardness (as CaCO <sub>3</sub> )	T-12/11 : W-1/11	ppm	NA	NA	43.1	21.3-77	93
Sodium	T-12/11 : W-1/11	ppm	NA	NA	18.4	8.85-37.7	24
Generally found in ground & surface water							
<b>Additional Analyses</b>							
Silica	T-12/11	ppm	NA	NA	10.5	7.06-16.1	NT
Phosphate	T-12/11	ppm	NA	NA	0.12	ND-0.48	NT
<b>Disinfectant Residuals</b>							
Parameters							
	Last Sample Date	Units	MCDL	MRDLG	Treated Water	Range	Holson Well
Chlorine	T-12/11	ppm	4	4	1.47	.90-2.48	NT
Typical Source: Drinking water disinfectant added for treatment							
Total Organic Carbon	T-12/11	ppm	NA	NA	1.7	1.2-2.1	NT
Typical Source: Erosion of natural deposits							



**Inside: 2011 Annual Water Quality - Consumer Confidence Report**

Parameters							
Metals	Last Sample Date	Units	No. of Samples Collected	90 <sup>TH</sup> Percentile Level Detected	AL	PHG (MCLG)	Holson Well
Lead *	July 2011	ppb	20	ND	ND	ND	NT
<p>Typical Source: Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. North of the River Municipal Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds-2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the State Drinking Water Hotline or at <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a></p>							
Copper *	July 2011	ppm	20	ND	ND	ND	<10
<p>Typical Source: Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives. We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 2010, we did not monitor or test for Lead &amp; Copper in the distribution system and therefore cannot be sure of the quality of the drinking water during that time. Please note the results for 2011 are within the normal range and thus in compliance.</p>							